displacing said upper and lower sidewall mold members toward each other so that said upper and lower segments are brought into abutment with each other; and operating the cam ring while the cam ring remains in direct engagement with the upper and lower tread mold members to simultaneously displace all of said segments radially inwards independently of approaching displacements of said side wall mold members toward each other and relative to said upper and lower sidewall mold members, with said upper segments in abutment with said lower segments.

REMARKS

Claims 1, 2 and 4-6 are pending. By this Amendment, claim 6 is amended.

Entry of the amendment is proper under 37 CFR §1.116 since the amendment: (a) places the application in condition for allowance (for the reasons discussed herein); (b) does not raise any new issues requiring further search and/or consideration (since the amendment amplifies issues previously discussed throughout prosecution); (c) satisfies a requirement of form asserted in the previous Office Action; (d) does not present any additional claims without canceling a corresponding number of finally rejected claims; and (e) places the application in better form for appeal, should an appeal be necessary. The amendment is necessary and was not earlier presented because it is made in response to arguments raised in the final rejection. Entry of the amendment is thus respectfully requested.

The attached Appendix includes a marked-up copy of rewritten claim 6 (37 C.F.R. §1.121(c)(1)(ii)).

I. The Claims Define Patentable Subject Matter

The Office Action rejects claims 1, 2 and 4-6 under 35 U.S.C. §103(a) over Great Britain Patent No. 1,248,891 (the '891 Patent) in view of Miyata et al. (U.S. Patent No. 5,208,044). This rejection is respectfully traversed.

The '891 Patent, alone or in combination with Miyata, does not disclose or suggest a vulcanizing mold for pneumatic tires including, inter alia, a single cam ring in direct engagement with upper and lower tread mold members, the single cam ring being displaceable independently of approaching displacements of side wall mold members toward each other, as recited in claim 1. The '891 Patent, alone or in combination with Miyata, also does not disclose or suggest a vulcanizing method for vulcanizing pneumatic tires including, inter alia, operating the cam ring while the cam ring remains in direct engagement with the upper and lower tread mold members to simultaneously displace all of said segments radially inwards independently of approaching displacements of said side wall mold members toward each other and relative to said upper and lower sidewall mold members, as recited in claim 6.

Instead, in the '891 Patent, the same mechanism (piston 47) is used to move both side wall mold members (support 41) and a cam ring 43. See page 5, lines 74-80. Specifically, in the '891 Patent, the plate 45 is lowered, by lowering of the piston 47, and the plate 45 makes contact with both the support 41 and the pressure ring 43 to lower both of these members. In contrast, according to the claimed invention, the single cam ring is displaceable independently of the displacements of the side wall mold members.

Further, Miyata discloses an upper platen 6a that is lowered to push downward both an upper mold member 1 and an upper actuator portion 4a. See Fig. 2 and col. 7, line 52 through col. 8, line 22 of Miyata. That is, in Miyata, the upper mold member 1 can not be lowered without also lowering the upper actuator portion 4a.

For at least these reasons, it is respectfully submitted that claims 1 and 6 are patentable over the applied references. The dependent claims are likewise patentable over the applied references for at least the reasons discussed as well as for the additional features they recite. Applicants respectfully request that the rejection under 35 U.S.C. 103 be withdrawn.

II. Conclusion

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

Should the Examiner believe anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

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JAO:BMH/vgp

Date: April 9, 2003

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APPENDIX

6. (Twice-Three Times Amended) A vulcanizing method for vulcanizing pneumatic tires with a vulcanizing mold which comprises: (i) upper and lower base plates; (ii) upper and lower sidewall mold members attached to said upper and lower base plates, respectively; and (iii) upper and lower tread mold members attached to said upper and lower base plates, respectively, the upper and lower tread mold members being in direct engagement with a cam ring; (iv) said upper and lower tread mold members being constituted of upper segments and lower segments, respectively, which are radially expanded and contracted relative to the upper and lower sidewall mold members, respectively; said method comprising the steps of:

displacing said upper and lower sidewall mold members toward each other so that said upper and lower segments are brought into abutment with each other; and

operating the cam ring while the cam ring remains in direct engagement with the upper and lower tread mold members to simultaneously displace all of said segments radially inwards independently of approaching displacements of said side wall mold members toward each other and relative to said upper and lower sidewall mold members, with said upper segments in abutment with said lower segments.